



# External Siren & Strobe SH423AX



## INSTALLATION MANUAL

### Contents

<b>1. Introduction.....</b>	<b>2</b>
<b>2. Preparing the siren .....</b>	<b>2</b>
2.1 Tooling required.....	2
2.2 Opening the siren and connecting the power supply .....	2
<b>3. Recognition programming.....</b>	<b>3</b>
<b>4. Setting the parameters .....</b>	<b>3</b>
4.1 Delayed alarm sounding upon intrusion .....	3
4.2 Setting the sounding parameters.....	4
4.3 Type of sounding.....	4
4.4 Sound level of arm and disarm command indications .....	4
4.5 Transfer of arm and disarm command indications.....	4
4.6 Indication of audible signals and door bell .....	4
4.7 Validation of radio link in installation mode.....	4
4.8 Triggering upon intrusion .....	4
4.9 Protection system armed indication .....	5
4.10 Alarm indication in armed presence mode.....	5
4.11 Duration of flashing.....	5
4.12 Triggering following a communication network interruption .....	5
4.13 Radio tamper.....	5
4.14 Indication of break-in following intrusion .....	5
4.15 Visual localisation of flashing strobe following intrusion .....	6
4.16 Allocation of siren to an alarm group .....	7
4.17 Type of indication .....	7
4.18 Anti-tamper switch triggering .....	7
4.19 Checking .....	7
4.20 Deletion of parameters .....	8
<b>5. Installing the siren.....</b>	<b>8</b>
5.1 Choosing the best place to install the siren .....	8
5.2 Testing the radio range .....	8
5.3 Fixing the siren in place .....	9
<b>6. Performing a real test.....</b>	<b>10</b>
<b>7. Maintenance .....</b>	<b>10</b>
7.1 Fault indications .....	10
7.2 Changing the battery .....	10
<b>8. Summary of parameters .....</b>	<b>11</b>
<b>9. Technical data .....</b>	<b>12</b>

### Recommendations

The user must not attempt to access the siren's internal parts, except areas described in this manual. If the user does access these parts, the product guarantee will be considered null and void and DAITEM shall not be held responsible for any problems. Touching the siren's internal parts and/or electronic components can damage the product. Furthermore, the siren is designed in such a way that these parts and components do not need to be accessed for operation or maintenance purposes.

**IMPORTANT: the siren's sound level can cause hearing disorders. Take the necessary precautions before testing the product.**

# 1. Introduction

## IMPORTANT

- Some functions are only available with versions 2.0.0 or later (press **# 5 0 3 # #** on the control panel keypad to check the version).
- The operating differences with former ranges are described in the compatibility booklet available in the Daitem installers section at [www.daitem.co.uk](http://www.daitem.co.uk).

In addition to the protection provided by the control panel with built-in siren and keypad, the external siren with flashing strobe makes it possible to:

- **deters intruders** and **alert neighbours** (external sounding mode),
- **easily locate the alarm** (flashing strobe).

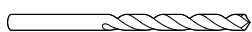
If a fire is detected, the siren is triggered for 5 minutes in fire sounding mode.

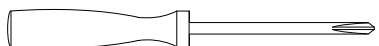
Thanks to its built-in transmitter, the siren informs the control panel when it has a battery problem.

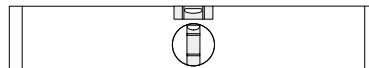
If somebody attempts to pull the siren off the wall, it sounds and then triggers all the alerts and deterrents via the control panel.

## 2. Preparing the siren

### 2.1 Tooling required

 Ø 6 mm

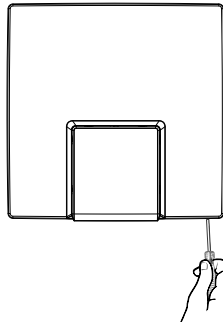
 PZ 2



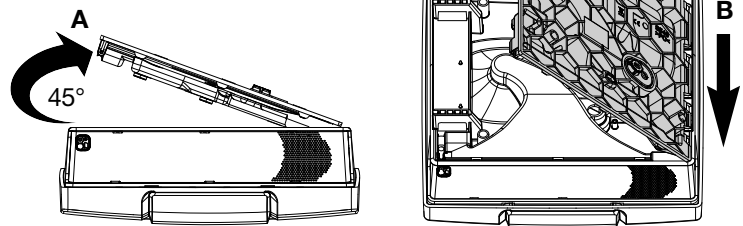
**IMPORTANT: the fixing screws and wall plugs are not supplied.**

### 2.2 Opening the siren and connecting the power supply

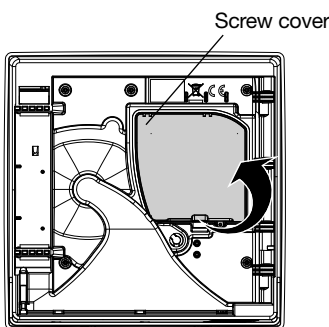
1. Insert a screwdriver into the bottom right-hand corner between the base and the siren and apply pressure to open the siren.



2. Place the siren on a flat surface, remove the base by inclining it at a 45° angle (A) and pull it downwards (B).



3. Lift up the screw cover and remove the screw from its slot.



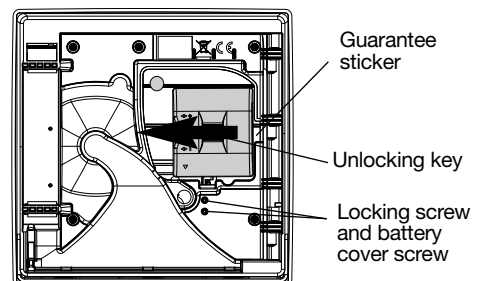
#### 4. Guarantee sticker

Remove the pre-cut part of the sticker and stick it to the guarantee certificate in the user manual supplied with the control panel. If you are adding the siren to an existing system, use the guarantee sticker provided with this product.

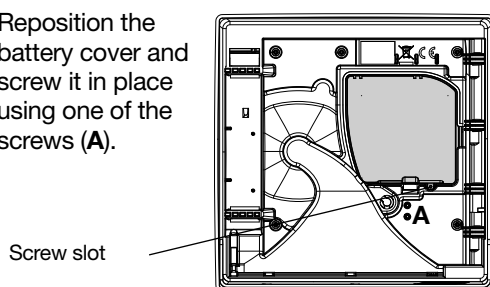


5. Position the power pack on the guide rails.

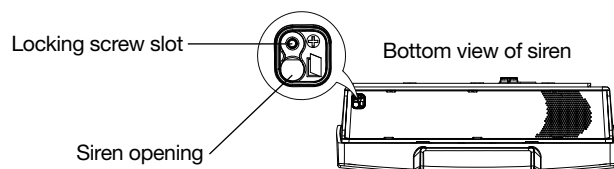
6. Slide the power pack to the left until it is locked into place.



7. Reposition the battery cover and screw it in place using one of the screws (A).



8. Position the locking screw in its slot.



**IMPORTANT**

- When the siren is powered, it will issue a long beep and automatically switch to installation mode (tamper mechanism disabled).
- If the siren does not respond as it should:
  - disconnect the power pack,
  - wait for 2 minutes,
  - reconnect the lithium power pack,
  - check the siren issues a long beep as it should.

## 4.2 Setting the sounding parameters

#### 4.2.1 Duration of alarm sounding

To modify the duration of sounding, enter:

Diagram illustrating the timeline structure for the 180-second session. The timeline consists of 12 cells. The symbols in the cells are: \*, \*, 4, \*, [empty box], \*, 4, \*, [empty box], [empty box], [empty box], \*, \*. An arrow points to the 5th cell (empty box) labeled "siren n°". Another arrow points to the 9th cell (empty box) labeled "from 20 to 180 s".

Factory setting: 90 s

#### 4.2.2 Level of sounding

To modify the level of sounding, enter:

Diagram illustrating the layout of a 12-slot memory card:

- Slot 1: \*
- Slot 2: \*
- Slot 3: 4
- Slot 4: \*
- Slot 5: (Empty) - Labeled "siren n°"
- Slot 6: \*
- Slot 7: 1
- Slot 8: 9
- Slot 9: \*
- Slot 10: (Empty) - Labeled "0: normal", "1: quiet"
- Slot 11: \*
- Slot 12: \*

Factory setting: 0

### 4.3 Type of sounding

To modify the type of siren sounding, enter:

Diagram illustrating the structure of the Siren ID (12 bits):

- Bit 11: \*
- Bit 10: \*
- Bit 9: 4
- Bit 8: \*
- Bit 7: (empty)
- Bit 6: \*
- Bit 5: 1
- Bit 4: (empty)
- Bit 3: \*
- Bit 2: (empty)
- Bit 1: (empty)
- Bit 0: \*

Annotations:

- Bit 8 is labeled "siren n°".
- Bit 3 is labeled "0: internal, 1: external".

Factory setting: external

#### 4.4 Sound level of disarm and arm command indications

For greater user-friendliness, the sound level can be increased or decreased. To do this, enter:

Factory setting: 4 = average

#### 4.5 Transfer of arm and disarm commands

To modify the transfer of indications, enter:

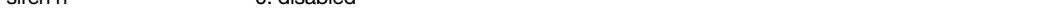
Factory setting: 0

0: disabled  
 1: sounding  
 3: sounding and flashing  
 5: flashing

Factory setting: 0

#### 4.6 Indication of audible signals and door bell

This function is factory-set to be disabled. It can be activated if required. To do this, enter:



Factory setting: 0

#### 4.7 Validation of radio link in installation mode

This function is used to validate the radio link test in installation mode on 1 of the 2 radio bands.

To switch to 2 bands, enter:

Factory setting: 0

## 4.8 Triggering upon intrusion

The alarm is factory-set to be triggered as soon as an intrusion is detected. This function can be deactivated or activated for intrusion confirmed indications only. To do this, enter:

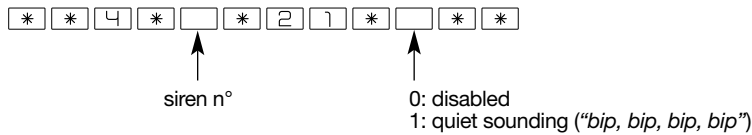
Factory setting: 1

0: disabled  
 1: single or confirmed intrusion  
 2: confirmed intrusion only

Factory setting: 1

## 4.9 Protection system armed indication

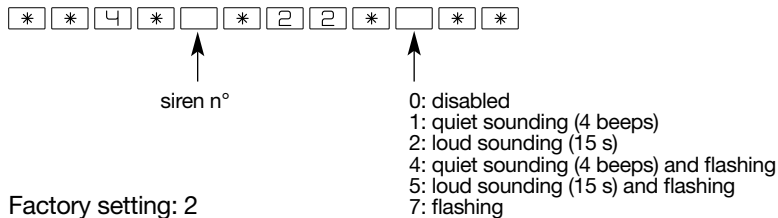
When this function is enabled, the siren issues a series of 4 beeps to indicate that the system is armed. This function is not activated by default.



Factory setting: 0

## 4.10 Alarm indication in armed presence mode

The siren is factory-set to sound loudly for 15 s in case of intrusion. This function can be modified. To do this, enter:



Factory setting: 2

## 4.11 Duration of flashing

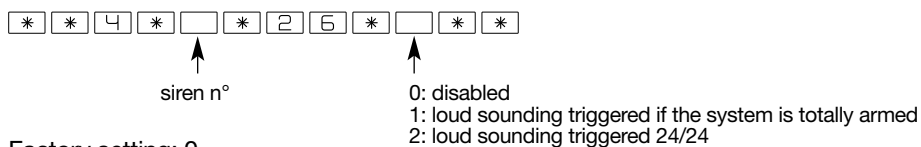
To modify the duration of flashing, enter:



Factory setting: 15 mn

## 4.12 Triggering following a communication network interruption

When this function is enabled, loud sounding can be triggered (except when parameter 26 is set at 0).

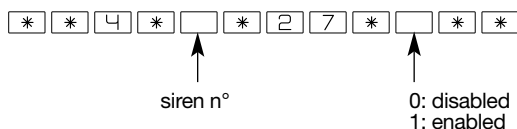


Factory setting: 0

## 4.13 Radio tamper

If the radio links are deliberately tampered with, the siren is triggered.

To activate or deactivate the radio tamper system, enter:



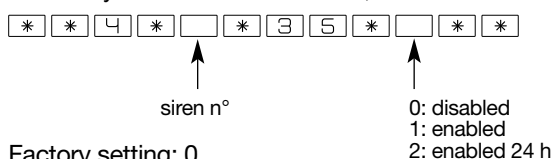
Factory setting: 1

## 4.14 Indication of break-in following intrusion

The "break-in indication" function lets a neighbour or correspondent know that an intruder is still on the monitored premises. When intrusion occurs, the strobe is activated continuously. After a period of 3 minutes without intrusion, the flashing becomes discontinuous (on for 6 seconds, off for 6 seconds) indicating that there is no intruder on the premises. If the intruder returns, the strobe is reactivated continuously once more (see diagram).

The function "Break-in Indication" is active if parameter "5", "Flash duration" is greater than 3 minutes.

To modify the break-in indication, enter:



Factory setting: 0

## 4.15 Visual localisation of flashing strobe following break-in

The “visual localisation” function can be triggered following a “break-in indication” (if this function has been enabled) or once the “flashing duration” has run its course. By extending the effect of the flashing strobe (on for 6 seconds, off for 16 seconds), the “visual localisation” function helps the user’s correspondent to visually localise the premises where the alarm has been triggered (see diagram).

To modify the strobe’s visual localisation function, enter:

\* \* 4 \* \* 3 6 \* \* \*

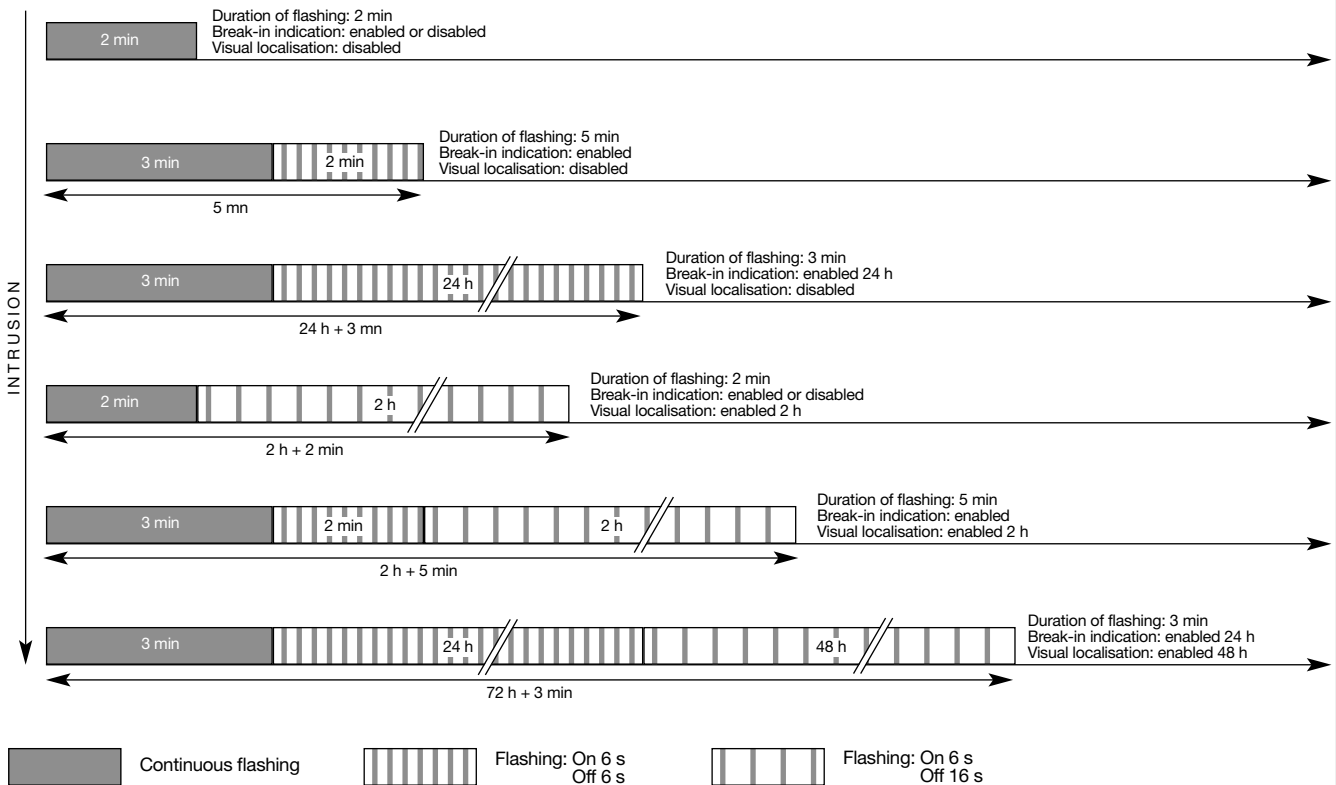
siren n°

0: disabled  
1: enabled 2 h  
2: enabled 48 h

Factory setting: 0

**How the different functions work:**

- duration of flashing (parameter 5)
- break-in indication (parameter 35)
- visual localisation of flashing strobe (parameter 36)



### IMPORTANT

- If the “break-in indication” function (parameter 35) and/or the “visual localisation” function (parameter 36) is/are activated, the installer should be aware that this will use up the batteries at a faster rate than usual when the complete indication cycle is triggered (see the table below for the power pack battery life according to selected parameters).
- When parameters 35 and/or 36 are selected with a long-duration indication value (value 2), we recommend changing the power pack on a yearly basis.

Power pack battery life according to the programming of parameters 35 and 36:

		Parameter 35: “break-in indication function”		
		0	1	2
Parameter 36: “visual localisation function”	0	<b>5 years</b> 10 complete activations/year (factory)	<b>5 years</b> 8 complete activations/year	<b>2 years</b> 2 complete activations/year
	1	<b>5 years</b> 7 complete activations/year	<b>5 years</b> 4 complete activations/year	<b>2 years</b> 2 complete activations/year
	2	<b>2 years</b> 2 complete activations/year	<b>2 years</b> 2 complete activations/year	<b>2 years</b> 1 complete activation/year

#### 4.16 Allocation of siren to alarm group

To allocate the siren to one or several alarm system groups, enter:

Diagram illustrating the structure of the 16-digit alarm code:

- The code consists of 16 digits, represented by boxes.
- The 5th digit is designated as the **siren n°** (indicated by an arrow).
- The 11th digit is designated as **groups from 1 to 8 depending on the type of control panel** (indicated by an arrow).
- The code structure is: \*, \*, 4, \*, [empty], \*, 3, 7, \*, [empty], ..., [empty], \*, \*.

Factory setting: all groups

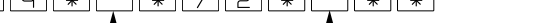
**Example**, to allocate siren n° 1 to Group 2 and Group 3, enter:

\* \* 4 \* 1 \* 3 7 \* 2 3 \* \*

#### 4.17 Type of indication

#### 4.17.1 For warnings

To modify the type of warning indication, enter:



siren n°

0: disabled  
 1: sounding (2 s)  
 2: sounding (2s) and flashing (5 s)  
 3: flashing (5 s)

Factory setting: 3

Factory setting: 3

#### 4.17.2 For deterrence

To modify the type of deterrence indication, enter:

Factory setting: 2

### 4.17.3 For prealarms

To modify the type of prealarm indication, enter:

\* \* 4 \* [ ] \* 7 4 \* [ ] \* \*

siren n°


0: disabled  
1: sounding (loud for 15 s)  
2: sounding (loud for 15 s) and flashing (15 s)  
3: flashing (15 s)

Factory setting: 2

Factory setting: 2

#### 4.18 Anti-tamper switch triggering

To modify the conditions under which the anti-tamper switch will activate the siren, enter:



Factory setting: 1

## 4.19 Checking

To check parameter-setting, enter:

Diagram illustrating the memory layout for a specific configuration. The memory is divided into 12 slots, each containing a symbol or value. The symbols are: \*, \*, 4, \*, empty, \*, empty, empty, \*, #, \*, \*. Arrows indicate that the 5th slot (empty) is associated with 'siren n°' and the 7th slot (empty) is associated with 'parameter n°'.

**Example**, to check on **siren n° 1**, parameter **4: duration of sounding**, enter

\* \* 4 \* 7 \* 4 \* # \* \*

“4, bip, 9, 0”



## 4.20 Deletion of parameters

- To delete a parameter, enter:

\* \* 4 \*  \*  \* \* 0 \* \*

↑                      ↑  
siren n°      parameter  
                    n°

- To delete all parameters, enter:

\* \* 4 \*  \* 1 9 7 \* \* \*

↑  
siren n°

## 5. Installing the siren

### 5.1 Choosing the best place to install the siren

**IMPORTANT:** make sure there is a distance of at least 2 metres between each product, except between two detectors.

The siren should preferably be placed:

- at a height,
- far away from possible sources of electrical interference (electricity meter, telephone box, etc.).

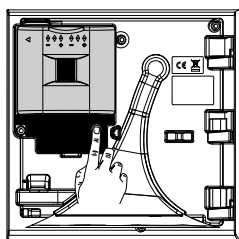
**Never fix the siren to a metal wall.**

### 5.2 Testing the radio range

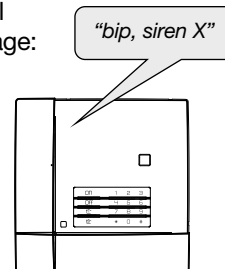
Before fixing the siren in place, test its radio range in the chosen location by putting it there.

**If the test is satisfactory, fix the siren in place. Otherwise, move it to a different location.**

1. Press the test button.



2. The control panel issues the message:



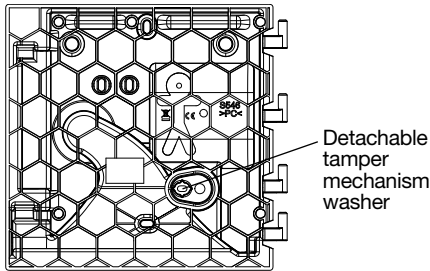


### 5.3 Fixing the siren in place

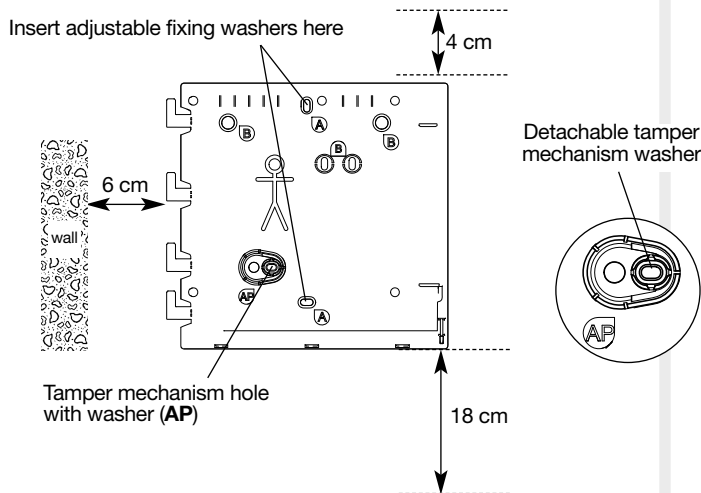


The siren can be fixed in two different ways:

1. • Remove the tamper mechanism washer located at the back of the base.

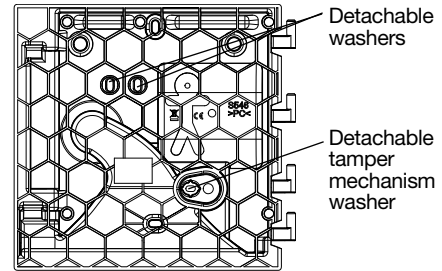


- For the siren to be installed there must be a space of 6 cm to the left of the base, 4 cm above and 18 cm below. This clearance allows for the siren to be easily opened or locked.
- Fix the base at 3 points:
  - the two fixing points (A),
  - the tamper mechanism (AP).

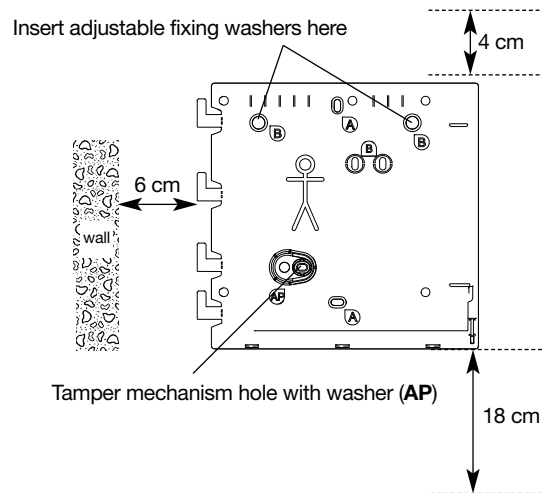


OR

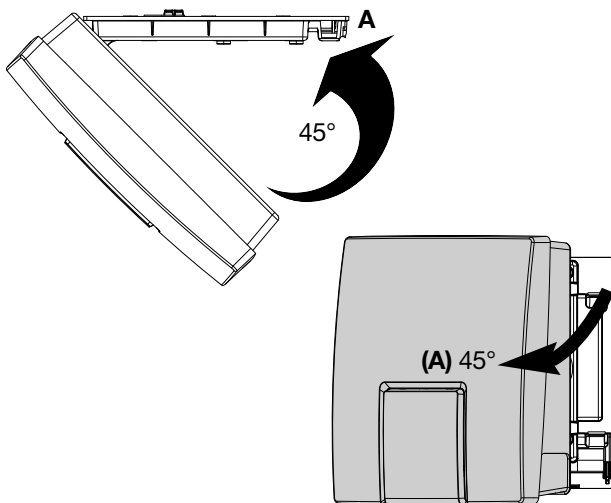
- Remove the two fixing washers located at the back of the base. Remove any extra parts from the washers.
- Remove the tamper washer located at the back of the base.



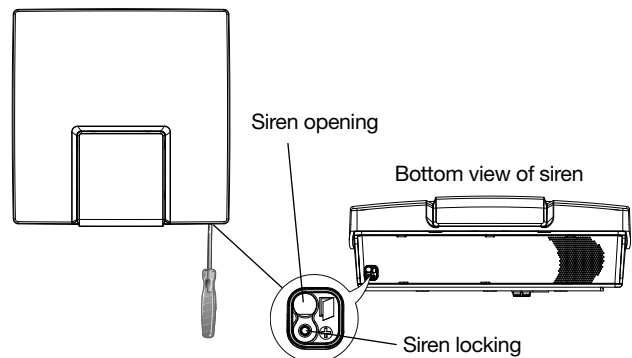
- For the siren to be installed there must be a space of 6 cm to the left of the base, 4 cm above and 18 cm below. This clearance allows for the siren to be easily opened or locked.
- Fix the base at 3 points:
  - the two fixing points (B),
  - the tamper mechanism (AP).



2. Position the siren open at an angle of 45° (A) in relation to the base and insert the pivots on the base into the hinges.



3. Close the siren and lock it using the screw located inside the product.



## 6. Performing a real test

### Testing triggering when there is an attempt to remove the siren

**IMPORTANT:** the sound level of the siren can cause hearing disorders. The necessary precautions must therefore be taken before testing siren triggering.

1. Loosen the siren locking screw.
2. Open the siren.
3. Check triggering:
  - of the siren
  - of the control panel
  - of the telephone dialler
4. Issue an Off order.



## 7. Maintenance

### 7.1 Fault indications

The control panel supervises and identifies the siren.  
It monitors the state of the:

- **power supply,**
- **radio link,**
- **tamper contact.**

If a fault is memorised the control panel issues a voice message to indicate the fault following a system command (see § Fault indications in the control panel installation manual).

### 7.2 Changing the battery

- **The lithium battery pack must be replaced by the same type of pack with the same technical characteristics, i.e. 2 x (3.6 V – 13 Ah).**
- **We advise you to use the DAITEM BatLi22 pack available in the catalogue in order to guarantee individual safety and equipment reliability.**
- **Dispose of the waste lithium power pack in an appropriate recycling bin.**



#### To change the battery:

1. send a disarm command,
2. switch the control panel to installation mode:  

#

2

#

#

master code

then

#

3

#

#

installer code
3. remove the siren from the wall,
4. remove the faulty lithium power pack,
5. wait for 2 minutes before connecting the new lithium pack,
6. close the siren and put it back on its base,
7. switch the control panel to user mode:  

#

1

#

#




installer code
8. test triggering.

## 8. Summary of parameters

Parameter description	Parameter-setting sequence	Factory parameter	Possible values	Page
Delayed sounding upon intrusion	** 4 * <i>siren</i> n° * 3 * ?? **	0: immediate	from 0 to 60 s 0: immediate	3
Sounding duration	** 4 * <i>siren</i> n° * 4 * ??? **	90 s (60 s Spain)	from 20 s to 180 s	4
Flashing duration	** 4 * <i>siren</i> n° * 5 * ?? **	15 min	from 1 to 60 min	5
Type of sounding	** 4 * <i>siren</i> n° * 10 * ? **	external	0: internal 1: external	4
Sound level of disarm/arm indications	** 4 * <i>siren</i> n° * 11 * ? **	4: average	from 1 to 8	4
Transfer of disarm/arm indications	** 4 * <i>siren</i> n° * 12 * ? **	0: disabled	0: disabled 1: sounding 3: sounding and flashing 5: flashing	4
Indication of audible signals and door bell	** 4 * <i>siren</i> n° * 13 * ? **	0: disabled	0: disabled 1: enabled	4
Validation of radio link in installation mode	** 4 * <i>siren</i> n° * 15 * ? **	0: on one of 2 bands	0: validation on 1 of 2 bands 1: validation on 2 bands	4
Sounding level	** 4 * <i>siren</i> n° * 19 * ? **	0: normal	0: normal 1: quiet	4
Triggering upon intrusion	** 4 * <i>siren</i> n° * 20 * ? **	1: single or confirmed intrusion	0: disabled 1: single or confirmed intrusion 2: confirmed intrusion only	4
Protection system armed indication	** 4 * <i>siren</i> n° * 21 * ? **	1: disabled	0: disabled 1: sounding	5
Alarm indication in armed presence mode	** 4 * <i>siren</i> n° * 22 * ? **	2: loud sounding (15 s)	0: disabled 1: quiet sounding (4 beeps) 2: loud sounding (15 s) 4: quiet sounding (4 beeps) and flashing 5: loud sounding (15 s) and flashing 7: flashing	5
Triggering upon communication network interruption	** 4 * <i>siren</i> n° * 26 * ? **	0: disabled	0: disabled 1: loud sounding triggered if the system is totally armed 2: loud sounding triggered 24/24	5
Radio tamper	** 4 * <i>siren</i> n° * 27 * ? **	1: enabled	0: disabled 1: enabled	5
Indication of break-in following intrusion	** 4 * <i>siren</i> n° * 35 * ? **	0: disabled	0: disabled 1: enabled 2: enabled 24 h	5
Visual localisation of flashing following intrusion	** 4 * <i>siren</i> n° * 36 * ? **	0: disabled	0: disabled 1: enabled 2 h 2: enabled 48 h	6
Allocation of a siren to one or several intrusion groups	** 4 * <i>siren</i> n° * 37 * ? **	all groups	Selection of group(s): from 1 to 8 depending on type of control panel	7
Type of warning indication	** 4 * <i>siren</i> n° * 72 * ? **	3: flashing	0: disabled 1: sounding 2: sounding and flashing 3: flashing	7
Type of deterrence indication	** 4 * <i>siren</i> n° * 73 * ? **	2: sounding and flashing	0: disabled 1: sounding 2: sounding and flashing 3: flashing	7
Type of prealarm indication	** 4 * <i>siren</i> n° * 74 * ? **	2: sounding and flashing	0: disabled 1: sounding 2: sounding and flashing 3: flashing	7
Anti-tamper switch triggering	** 4 * <i>siren</i> n° * 75 * ? **	1: enabled if system totally armed	0: enabled 24 h/day 1: enabled if system totally armed	7
Deletion of all parameters	** 4 * <i>siren</i> n° * 197 ***			8
Deletion of one parameter	** 4 * <i>siren</i> n° * <i>parameter</i> n° ** 0 **			8

## 9. Technical data

Technical specifications	SH421AX, SH422AX, SH423AX, SH421AI sirens
Acoustic level	109 dB at 1 m
Sounding duration	20 s to 180 s
External sounding	1400 Hz to 1600 Hz
Fire sounding	700/900 Hz, sounding duration: 5 min.
Transfer of Arm/Disarm indications	Audible
Environment	External
Power supply	TwinPower® via lithium power pack (2 x 3.6 V)
Battery life	5 years in normal conditions of use
Average current consumed	327 µA
Average humidity rate	5% to 75% without condensation at 25°C possibly varying between 85% & 95% for 30 days over the course of the year
Radio links	TwinBand® 400/800 MHz
Supervision	Radio, lithium pack, tamper
Operating temperature	-25°C to + 70°C
Tamper protection against	<ul style="list-style-type: none"> <li>• opening</li> <li>• removal</li> </ul>
Degrees of mechanical protection	IP 54/IK 08
W x H x D	248 x 248 x 84 mm
Weight	2.5 kg (with battery)
Security grade	grade IV according to standard EN 50131-4
Environmental class	class IV according to standard EN 50130-5

	<b>DECLARATION OF CONFORMITY</b> Manufacturer: <b>Hager Security SAS</b> Address: <b>F-38926 Crolles Cedex - France</b>				
	Product type: <b>External siren</b> Trade mark: <b>Daitem</b> We declare under our sole responsibility that the product to which this declaration relates is compliant with the essential requirements of the following directives: • <b>R&amp;TTE directive: 99/5/EEC</b> • <b>Low voltage directive: 2006/95/EC</b> • <b>ROHS directive: 2002/95/EC</b> in compliance with the following harmonised European standards:				
<b>Product references</b>	<b>SH421AX</b>	<b>SH422AX</b>	<b>SH423AX</b>	<b>SH421AI</b>	
EN 300 220-2 V3.2.1	X	X	X	X	
EN 50130-4 (95) + A1 (98) + A2 (2002)	X	X	X	X	
EN 55022 & 55024 (2002)	X	X	X	X	
EN 60950 (2006)	X	X	X	X	
EN 301 489-1 V1.8.1	X	X	X	X	
This product can be used in all EU, EEA Countries and Switzerland. Crolles, 02.01.2013      Signature:  Patrick Bernard Research & Development Manager					

Non-binding document, subject to modification without notice.

*To obtain advice when installing your system or before returning equipment, please contact the Daitem technical support team (see telephone number at the back of the alarm system installation manual) or check the web site at:*

**[www.daitem.co.uk](http://www.daitem.co.uk)**

*A team of qualified technicians will advise you what to do.*